

24. (New) A resin encapsulating apparatus according to claim 8, wherein the second drive section drives the squeegee independently of the first drive section which drives the extruding section.

25. (New) A resin encapsulating apparatus according to claim 24, wherein the squeegee moves separately from the extruding section.

26. (New) A resin encapsulating apparatus according to claim 24, wherein the second drive section causes the squeegee to come into contact with one side of the opening of the mask, to move another side of the opening which is opposed to the one side of the opening, and to move away from the mask.--

REMARKS

By the present Amendment, Applicant has amended claims 1 and 8 to more appropriately define the invention, and added new claims 21-26 to protect additional aspects related to the present invention. Claims 1-15, 18, and 21-26 are pending, with claims 15 and 18 being withdrawn from further consideration as being drawn to a non-elected invention.

In the Office Action, the Examiner rejected claims 1-14 under 35 U.S.C. § 102(b) as anticipated by Kawakami et al. (U.S. Patent No. 5,145,691, hereinafter "Kawakami"), and rejected claims 1-4 and 8-11 under 35 U.S.C. § 102(b) as anticipated by Lin et al. (U.S. Patent No. 5,587,342, hereinafter "Lin"). Applicant respectfully traverses these rejections for the following reasons.

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

In order to properly anticipate Applicant's claimed invention under 35 U.S.C. § 102(b), each and every element of the claim in issue must be found, either expressly described or under principles of inherency, in a single prior art reference. Furthermore, "[t]he identical invention must be shown in as complete detail as is contained in the ... claim." See M.P.E.P. § 2131 (8th Ed., Aug. 2001), quoting *Richardson v. Suzuki Motor Co.*, 868 F.2d 1126, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989). Finally, "[t]he elements must be arranged as required by the claim." M.P.E.P. § 2131 (8th Ed. 2001), p. 2100-69. In this case, neither Kawakami nor Lin teaches all the elements of the claims.

Claim 1 is directed to a resin encapsulating apparatus comprising a combination of elements including, *inter alia*, "a first control section ... which causes [an] extruding section to be driven by controlling [a] first drive section ... a second control section ... which causes [a] squeegee to be driven by controlling [a] second drive section." Claim 8 is directed to a resin encapsulating apparatus having similar recitations.

In the rejection over Kawakami, the Examiner alleges that Kawakami teaches an apparatus comprising a retaining section, a mask, an extruding section, a first drive section for the extruding section, and a squeegee wherein the squeegee is attached to the extruding section and driven by the same driving means. Kawakami is directed to an apparatus for packing filler in a semiconductor device, and as alleged by the Examiner, Kawakami discloses the apparatus has a packing nozzle (extruding section) having a squeegee and manipulating means for manipulating the packing nozzle. See Kawakami, col. 3, lines 43-54 and col. 4, lines 67-68. Kawakami, however, does not disclose that the apparatus has a first control section and a second control section. In

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

fact, Kawakami teaches that the packing apparatus has only one controller. See Kawakami, col. 3, line 65 to col. 4, line 9.

Thus, Kawakami fails to teach, expressly or inherently, at least “a first control section ... which causes [an] extruding section to be driven by controlling [a] first drive section ... a second control section ... which causes [a] squeegee to be driven by controlling [a] second drive section,” recited in claims 1 and 8. Therefore, Kawakami fails to anticipate claims 1 and 8. For at least that reason, claims 1 and 8 are allowable.

Claims 2-7 and 9-14 are allowable at least due to their dependence from allowable claims 1 and 8, respectively.

Furthermore, with respect to the rejection of claims 1-4 and 8-11 under § 102(b) over Lin, Applicant asserts that Lin also fails to teach all the elements of the claims. Lin is directed to a method for forming electrical interconnects in a semiconductor device. Lin discloses forming conductive material in an opening and removing the excess material. See Lin, Figure 3. Lin, however, does not explicitly disclose an apparatus for performing this method. The Examiner alleges that certain elements are inherently taught by Lin, particularly the driving means for the drop supplying device and squeegee. Nevertheless, Applicant asserts that Lin does not teach, expressly or inherently, at least “a first control section ... which causes [an] extruding section to be driven by controlling [a] first drive section ... a second control section ... which causes [a] squeegee to be driven by controlling [a] second drive section,” recited in claims 1 and 8.

In a rejection under § 102(b), the Examiner may rely on the inherent teachings of a prior art reference. But, “[t]he fact that a certain result or characteristic may occur or

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

be present in the prior art is not sufficient to establish the inherency. M.P.E.P. § 2112 (8th Ed. 2001), p. 2100-51. Furthermore, "to establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.' " See M.P.E.P. § 2112 (8th Ed. 2001) quoting *In re Robertson*, 169 F.3d 743, 745, 49 U.S.P.Q.2d. 1949, 1950-51 (Fed. Cir. 1999).

As stated above, Lin does not explicitly teach an apparatus for filling the opening with a conductive material. Assuming, only for the sake of argument, but without conceding the same, Lin may inherently teach means for performing the steps of forming conductive material in an opening and removing the excess material. However, "a first control section" and "a second control section" is not necessarily present or required in the invention described by Lin.

Therefore, Lin fails to teach, expressly or inherently, at least "a first control section ... which causes [an] extruding section to be driven by controlling [a] first drive section ... a second control section ... which causes [a] squeegee to be driven by controlling [a] second drive section," recited in claims 1 and 8. Thus, Lin fails to anticipate claims 1 and 8. For at least this reason, claims 1 and 8 are allowable.

Claims 2-4 and 9-11 are allowable at least due to their dependence from allowable claims 1 and 8, respectively.

Additionally, Applicant has added new claims 21-26 to protect additional aspects related to the present invention. New claims 21-26 depend from claim 1, and therefore,

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

therefore, incorporate the elements of claim 1. As recited above in response to the rejection under 35 U.S.C. § 102(b), neither Kawakami nor Lin anticipate claim 1. Therefore, claims 21-26 are novel at least due to their dependence from claim 1. For at least this reason, claims 21-26 are patentable.

In view of the foregoing, Applicant respectfully requests the reconsideration and reexamination of this application and the timely allowance of the pending claims.

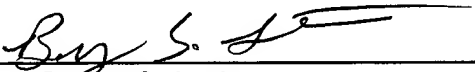
Attached hereto is a marked-up version of the changes made to the claims by this Amendment. The attachment is captioned "**Appendix to Amendment of July 10, 2002**".

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

Dated: July 10, 2002

By: 
Bryan S. Latham
Reg. No. 49,085

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

Appendix to Amendment of July 10, 2002

IN THE CLAIMS:

Please amend claims 1 and 8, and add new claims 21-26, as follows:

1. (Amended) A resin encapsulating apparatus comprising:

a retaining section [for retaining] which retains a semiconductor device;

a mask set on the semiconductor device and having an opening at which part of the semiconductor device is exposed;

an extruding section [for extruding] which extrudes a fluidizing resin into the opening of the mask;

a first drive section [for driving] which drives the extruding section;

a first control section which has positional information on a position of the opening of the mask and which causes the extruding section to be driven by controlling the first drive section based on the positional information;

a squeegee [for causing] which causes a movement of the [fluidiz-ing] fluidizing resin present over the opening which is extruded from the extruding section into the opening; [and]

a second drive section [for driving] which drives the squeegee; and

a second control section which has the positional information on the position of the opening of the mask and which causes the squeegee to be driven by controlling the second drive section based on the positional information.

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

8. (Amended) A resin encapsulating apparatus for forming a protection resin sealing body on a semiconductor device in which the resin sealing body and external connection balls are formed on the same surface side of the semiconductor device, the resin encapsulating apparatus comprising:

a retaining section [for retaining] which retains the semiconductor device;

a mask set on the semiconductor device and having an opening at which, when the mask is set on the semiconductor device, an area of the semiconductor device at which the resin sealing body is to be formed is exposed;

an extruding section [for extruding] which extrudes a fluidizing resin into the opening of the mask;

a first drive section [for driving] which drives the extruding section;

a first control section which has positional information on a position of the opening of the mask and which causes the extruding section to be driven by controlling the first drive section based on the positional information;

a squeegee [for causing] which causes a movement of the [fluidiz-ing] fluidizing resin present over the opening which is extruded from the extruding section into the opening; [and]

a second drive section [for driving] which drives the squeegee; and

a second control section which has the positional information on the position of the opening of the mask and which causes the squeegee to be driven by the controlling the second drive section based on the positional information.

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com